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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,091	12/04/2000	Akira Oosawa	Q61255	7543

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EXAMINER

PATEL, KANJIBHAI B

ART UNIT PAPER NUMBER

2625

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,091

Applicant(s)

OOSAWA, AKIRA

Examiner

Kanji Patel

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 and 21-33 is/are rejected.
7) ☒ Claim(s) 19 and 20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. Applicant's amendment filed on March 24 2005 has been entered and made of record.

By this amendment, claims 26-33 are added new. Claims 1-33 are pending in this application.

Response to Arguments

2. Applicant's arguments filed 3/24/05 have been fully considered but they are not persuasive.

Applicant argues on page 8 of the remarks that Ohkubo does not disclose " the two or more images displayed together in a row or a column with positions of a structural feature area of the identical object in the two or more images aligned horizontally or vertically" as recited in claims 1 and 8. The examiner disagrees. Ohkubo reference clearly teaches at column 25 line 42 to column 26 line 59 that image signal (the first X-ray image signal, which provides structural feature area, such as chest photograph for finding any diseases) S1 and the image signal (the second X- ray image signal) S2 representing two images (as shown aligned horizontally together in figure 22), which have been recorded at different points of time and are to be used for comparison, as specified by a person, who sees the images, such as medical doctor or a radiation engineer. Here again, comparison of two images is not possible without alignment of two images. Ohkubo further teaches at least at column 27, lines 29-36 that position matching process carried out by the image matching processing means 140 is not limited to the process utilizing the markers and one of various other known

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technique may be employed. For example, the position matching process utilizing two-dimensional non-linear image deformation may be employed.

Applicant further argues that there is no indication in the Ohkubo reference that the tow or more images are added onto an image display one by one. Ohkubo reference teaches this limitation at column 25 lines 42-59. Recorded S1 and S2 X-ray images are added onto an image display as shown in figure 22.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 and 21-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohkubo et al. (US 5,910,972).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

For claim 1, Ohkubo et al. disclose an image display method for displaying two (at least in figure 22, S1 and S2 are two images of an identical object for comparison) or more images of an identical object (single object is used; see abstract) to be compared, wherein the two or more images are displayed together in a row or a column with positions of a structural feature area of the identical object in the two or more images aligned horizontally or vertically (column 25 line 38 to column 26 line 59; marker patterns D are used for alignment and matching the positions of the images; column 27, lines 29-36).

For claim 2, Ohkubo et al. disclose an image display method according to claim 1, wherein each of the two or more images of the identical object to be compared is a radiation image for medical use (in figure 20 s1 and S2 are x-ray images, representing radiation images).

For claim 3, Ohkubo et al. disclose an image display method according to claim 2, wherein each of the two or more images of the identical object to be compared is an original image (column 26, lines 60-63).

For claim 4, Ohkubo et al. disclose an image display method according to claim 3, wherein the two or more original images are taken at different points in time (column 26 line 60 to column 27 line 5).

For claim 5, Ohkubo et al. disclose an image display method according to claim 2, wherein the two or more images of the identical object to be compared include at least one of a plurality of original images and a subtraction image (figures 3, 22; column 27, lines 5-9), which is derived by matching positions (figure 22) of two images selected

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out of said plurality of original images and taking a differential between the selected two images.

For claim 6, Ohkubo et al. disclose an image display method according to claim 5, wherein said plurality of original images are taken at different points in time (column 26 line 60 to column 27 line 5).

For claim 7, Ohkubo et al. disclose an image display method according to any one of claims 1-6, wherein each of the two or more images is added onto an image display one by one (column 25, lines 42-49).

For claim 8, Ohkubo et al. disclose an image display apparatus (at least figures 20-21) for displaying (200 in figure 20) two or more images (S1 and S2) of an identical object to be compared, comprising image display means (200) for displaying the two or more images thereon and position matching means (figure 21) for arranging the two or more images in a row or a column so that positions of a structural feature area of the identical object in the two or more images are aligned horizontally or vertically (figure 20-22; column 25 line 42 to column 26 line 44; column 27, lines 29-36).

For claim 9, see the rejection of claim 2 above.

For claim 10, see the rejection of claim 3 above.

For claim 11, see the rejection of claim 4 above.

For claim 12, see the rejection of claim 5 above.

For claim 13, see the rejection of claim 6 above.

For claim 14, see the rejection of claim 7 above.

For claims 15 and 23, Ohkubo et al. disclose an image display method according to claim 1, wherein the two or more images physically occupy different areas of a display when the two images are simultaneously displayed (at least figure 22).

For claims 16 and 24, Ohkubo et al. disclose an image display method according to claim 1, wherein a first of the two images represents the object at a first time (column 26 line 60 to column 27 line 5), and a second of the two objects represents the object at a second time different from the first time (column 26 line 60 to column 27 line 5).

For claims 17 and 25, Ohkubo et al. disclose an image display method according to claim 1, wherein the position of the structural feature area of the identical object in the two or more Images are displayed according to one of the following:

- 1) the identical object in two images are displayed at a common horizontal coordinate but different vertical coordinate (figure 22);
- 2) the identical objects in the two images are displayed at a common vertical coordinate but different horizontal coordinate (figure 22).

For claim 18, Ohkubo et al. disclose an image display apparatus according to claim 8, wherein said image display means conducts a subtraction processing to derive a subtraction image form the two or more images (figures 3, 22; column 27, lines 5-9).

For claim 21, Ohkubo et al. disclose an image display apparatus according to claim 12, wherein said subtraction image is obtained after a position matching operation of the position matching means (figures 21-22).

For claim 22, Ohkubo et al. disclose an image display method according to claim 1, wherein said two or more images are displayed together in a row or column are side by side at a given time (figure 22; column 26 line 60 to column 27 line 5).

For claims 26 and 27, Ohkubo et al. discloses an image display method and apparatus, wherein said structural feature area of the identical object comprises an anatomical region of interest to be compared (column 25, lines 42-59; X-ray images and more particularly chest photographs are used to provide an anatomical region of interest).

For claims 28 and 29, Ohkubo et al. discloses an image display method and apparatus, wherein said structural feature area of the identical object comprises a part of a human body (column 25, lines 42-59; x-rays images are of a person).

For claims 30 and 31, Ohkubo et al. discloses an image display method and apparatus, wherein said structural feature area of the identical object comprise at least one of a human body, an animal, a plant, an industrial product, a landform, a celestial body and a landscape (column 25, lines 42-59; x-rays images are of a person).

For claims 32 and 33, Ohkubo et al. discloses an image display method and apparatus, further comprising physically aligning horizontally or vertically the two or more displayed images according to the structural feature area of the identical object (column 25 line 42 to column 26 line 43; column 27, lines 29-36).

Allowable Subject Matter

4. **Claims 19-20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday to Thursday from 8:00 am to 6:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kanji Patel
AU 2625
July 7, 2005

✓

KANJIBHAI PATEL
PRIMARY EXAMINER